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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/574,420

07/11/2008

Shin Hasegawa

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SUGHRUE MION, PLLC
2100 PENNSYLVANIA AVENUE, N.W.
SUITE 800
WASHINGTON, DC 20037

EXAMINER

DOAN, TRANG T

ART UNIT

PAPER NUMBER

2431

MAIL DATE

DELIVERY MODE

06/10/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/574,420	Applicant(s) HASEGAWA, SHIN	
	Examiner TRANG DOAN	Art Unit 2431	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 February 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 July 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to the amendment filed on 02/24/2009.
2. Claims 1-2 have been amended.
3. Claims 3-4 have been added.
4. Claims 1-4 are pending for consideration.

Response to Arguments

5. Applicant's arguments with respect to claims 1-4 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-4 are rejected under 35 U.S.C. 102(e) as being anticipated by Tatebayashi et al. (US 20050102527) (hereinafter Tatebayashi).
8. Regarding claim 1, Tatebayashi discloses a peripheral device for a programmable logic controller, the peripheral device comprising:

an encryption means for encrypting peripheral device authentication data used in authentication for authorizing use of programmable logic controller peripheral device itself, encrypting data used in the programmable logic controller, and encrypting authentication data that is established in the programmable logic controller and that verifies whether or not communication with the programmable logic controller is authorized for the data used in the programmable logic controller (Tatebayashi: see figure 2, figure 5 and paragraphs 0118, 0145, 0186 and 0248: each of these devices can judge whether the other device is an authorized device. During the authentication process, three information transfers, that is, the transfer of encrypted inherent key, the transfer of authentication information, and the transfer of encrypted authentication information, are performed between these devices);

an external storage means for storing at least peripheral device authentication data having been encrypted (Tatebayashi: paragraphs 0083, 0101 and 0109);

an internal storage means for storing at least peripheral device authentication data having been encrypted (Tatebayashi: paragraphs 0145 and 0160);

a decryption means for decrypting the peripheral device authentication data, the data used in the programmable logic controller, and the authentication data (Tatebayashi: see figure 5 item 333 and paragraphs 0145, 0160, 0170 and 0248); and

a verification means for determining whether or not Use of the programmable logic controller peripheral device is authorized, by checking peripheral device authentication data read out from the external storage means and decrypted, against peripheral device authentication data read out from the internal storage means and

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decrypted (Tatebayashi: paragraphs 0109, 0181: decryption unit receives the encrypted random number S1 from the communication unit 340, 0183 and 0185-0186: compares the random number R'1 with the random number R1. If...matches...memory card 200 placed in the memory card writer is an authorized device).

9. Regarding claim 2, Tatebayashi further discloses wherein when communication between the programmable logic controller and the programmable logic controller peripheral device is via a network: the encryption means is further for encrypting network authentication data for authorizing the communication between the programmable logic controller and the programmable logic controller peripheral device (Tatebayashi: paragraph 0248); the external storage means is further for storing the network authentication data (Tatebayashi: see figure 4); and the decryption means is further for decrypting the network authentication data stored in the external storage means (Tatebayashi: see figure 5 item 333 and paragraphs 0145, 0160 and 0170).

10. Regarding claim 3, a peripheral device for a programmable logic controller, the peripheral device comprising:

an encrypter that encrypts peripheral device authentication data used in authentication for authorizing use of the programmable logic controller peripheral device itself, encrypts data used in the programmable logic controller, and encrypts authentication data that is established in the programmable logic controller and that verifies whether or not communication with the programmable logic controller is

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authorized for the data used in the programmable logic controller (Tatebayashi: see figure 2, figure 5 and paragraphs 0118, 0145, 0186 and 0248: each of these devices can judge whether the other device is an authorized device. During the authentication process, three information transfers, that is, the transfer of encrypted inherent key, the transfer of authentication information, and the transfer of encrypted authentication information, are performed between these devices);

an external storage that stores at least peripheral device authentication data having been encrypted (Tatebayashi: paragraphs 0083, 0101 and 0109);

an internal storage that stores at least peripheral device authentication data having been encrypted (Tatebayashi: paragraphs 0145 and 0160);

a decrypter that decrypts the peripheral device authentication data, the data used in the programmable logic controller, and the authentication data (Tatebayashi: see figure 5 item 333 and paragraphs 0145, 0160, 0170 and 0248); and

a verifier that determines whether or not use of the programmable logic controller peripheral device is authorized, by checking peripheral device authentication data read out from the external storage and decrypted, against peripheral device authentication data read out from the internal storage and decrypted (Tatebayashi: paragraphs 0109, 0181: decryption unit receives the encrypted random number S1 from the communication unit 340, 0183 and 0185-0186: compares the random number R'1 with the random number R1. If...matches...memory card 200 placed in the memory card writer is an authorized device).

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11. Regarding claim 4, wherein when communication between the programmable logic controller and the programmable logic controller peripheral device is via a network: the encrypter is further for encrypting network authentication data for authorizing the communication between the programmable logic controller and the programmable logic controller peripheral device (paragraph 0248); the external storage is further for storing the network authentication data (Tatebayashi: paragraphs 0083, 0101 and 0109); and the decrypter is further for decrypting the network authentication data stored in the external storage (Tatebayashi: see figure 5 item 333 and paragraphs 0145, 0160 and 0170).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TRANG DOAN whose telephone number is (571)272-0740. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William R. Korzuch can be reached on (571) 272-7589. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Trang Doan/
Examiner, Art Unit 2431

/Christopher A. Revak/
Primary Examiner, Art Unit 2431